

IT8000 Portable Data Terminal User's Guide

Microsoft® Windows® CE 5.0 Rugged Handy Terminal



Version 1.0

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Charpt 1. References

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1.1. General Use And Product Safety

- Do not stare into the laser beam directly or shine it into eyes.
- Never use strong pressure onto the screen or subject it to severe impact, as the LCD panel could become cracked and possibility cause personal injury. If the LCD panel is broken, never touch the liquid inside, for such contact would irritate the skin.
- Although the Handy Terminal has been passed the test of IP54 standard for water and dust resistance, avoid prolonged exposure to rain or other concentrated moisture. For these conditions exceed the IP54 standard, and could result in water or other contaminants entering into the Handy Terminal.
- Use only the approved AC Adapter with the Terminal. Use of an unapproved AC Adapter could result in electrical problems, or even cause a fire or electrical shock to the user.
- Be sure that only authorized supplier are allowed to disassemble and reassemble the device. If the device or parts has been damaged due to any wrong handling, shall void the product and parts warranty.
- Always make back-up copies of all important data. Easy done by using a

cable or Single Cradle (sold by optional) to transfer data to the computer. Manufacturer is not liable for any data damages or data loss caused by deletion or corruption by using of this device, or due to the drained battery.

- Lithium-ion battery packs might get hot, explode, ignite and/or cause serious injury if exploded by abusive using. Please follow the safety warnings listed as below:
 - ✧ Do not place the battery pack in fire or heat the battery.
 - ✧ Do not install the battery pack backwards so the polarity is reserved.
 - ✧ Do not connect the positive Battery pack with negative battery pack to each other with any metal object (like wire).
 - ✧ Do not carry or store battery pack together with metal objects.
 - ✧ Do not pierce the battery pack with nails, strike the battery pack with a hammer, step on the battery pack or otherwise put it to strong impacts or shocks.
 - ✧ Do not solder directly onto the battery pack.
 - ✧ Do not expose battery pack to liquid, or allow the battery contacts to get wet.
 - ✧ Do not disassemble or modify the battery pack. The battery pack contains safety and protection devices, which, if damaged, may cause the battery pack to generate heat, explode or ignite.
 - ✧ Do not discharge the battery pack using any device except for the specified device. When it is used in devices other than the specified devices, the battery pack can be damaged or its life expectancy reduced. If the device causes any abnormal current to flow, it may cause the battery pack to become hot, explode or ignite and cause serious injury.
 - ✧ In the event the battery pack leaks and the fluid gets into one's eye, do not rub the eye. Rinse well with water and immediately seek medical care. If left untreated, the battery fluid could cause damage to the eye.

1.2. FCC Compliance

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions :

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

NOTS : This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC

Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generate, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Warning : Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

IMPORTANT NOTE :

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

This device complies with FCC RF Exposure limits set forth for an uncontrolled environment, under 47 CFR 2.1093 paragraph (d)(2).

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

The FCC ID "SPY-PDT001" is for IT8000 that includes WLAN +Bluetooth functions.

1.3. WEEE Compliance



This symbol is placed on the product to remind users to dispose of Waste Electrical and Electronic Equipment (WEEE) appropriately, per Directive Europe 2002/96/EC. In most areas, this product can be recycled, reclaimed and re-used when properly discarded. Do not discard labeled units with trash.

1.4. System Specifications

Processor	Marvell PXA270 with 312 MHz 32 bits RISC CPU
Memory	- 256 MB M-System H3 Flash ROM - 128MB SDRAM
Display and Touch Panel	- Trans-missive 2.8" TFT 256K Color QVGA LCD with 300NT LED backlight (QVGA: 240 x 320) - 4-wire resistive type glass touch panel
Audio	- One mono speaker - 2.5mm DIA stereo earphone jack with Microphone input
RF Radio Support(Optional) - Wireless LAN	- 802.11b/g Wireless LAN - Compliant with WPA and IEEE 802.11i WPA2 - Cisco Compatible Extensions (CCX) Version 3 certification - Support full range of 802.1x(EAP) including EAP-TLS, EAP-FAST, LEAP, PEAP-MSCHAPv2 and PEAP-GTC - Support Static, Pre-shared and Dynamic encryption 40-bit and 128-bit keys. WEP, WPA: TKIP and WPA2:AES - Support coexistence with Bluetooth
RF Radio Support(Optional) -Bluetooth WPAN	-- Class II with V2.0 compliant -- Range 10 m -- Support coexistence with WiFi
External Connect Ports	-One cradle connector support RS232,

	<p>DC-IN and USB Host/Client</p> <ul style="list-style-type: none"> - Cradle connector support cable and Cradle - USB supports USB Client with USB 1.1 compliant - USB Host and Client will be switch-able from one USB port by software setting - Support 200mA maximum @ 5V for USB Host
Scan Engine	<ul style="list-style-type: none"> - Linear 1D Scanner: SE955
Expansion Slot	<ul style="list-style-type: none"> - One user accessible micro SD Memory slot - SD support software image upgrade
LED	<ul style="list-style-type: none"> - One two color LED for charger status - One two color LED and Vibrator for scanner indicator - One blue LED for Bluetooth connection (Optional) - One amber LED for WiFi connection (Optional)
Battery	<ul style="list-style-type: none"> - Main Battery: 2000mAH, 3.7V Li-Ion smart battery pack - Extended Battery: 4000mAH, 3.7V Li-Ion smart battery pack (Optional) - One rechargeable 15mAH, 2.4V Li-MH backup battery - Battery charge time: 3.5Hrs. for 4000mAH, 3.0Hrs. for 2000mAH
Power Adapter	<ul style="list-style-type: none"> - 100~240Vac, 50/60Hz Input - 5Vdc/5.0Aadc output
Button/Key	<ul style="list-style-type: none"> - One 32 keys Numeric Alpha keypad - LED keypad backlight - One Power/ LCD Backlight button - Keypad backlight will be turned on automatically when any key is pressed - One Barcode Scanner Button and four Navigation Buttons

Dimensions	175(L) x 66(56)(W) x 43(35)(H) mm
Weight	375g (extended battery), 330g (standard battery)
Software	- WinCE 5.0 Professional with IE, Inbox and Active Sync. - Backup manager, Scanner Setting utility, - SDK and BSP development software

1.5. Environment Standard

Storage Temperature	-25°C ~ 60°C
Operation Temperature	-10°C ~ 50°C
Humidity	95% non-condensing @ 40°C
Free Drop	1.2m (5ft) drop to concrete, 3 drops per 6 sides
Tumble Drop	100 times 1.0m tumbles (200 drops)
Environmental Sealing	IP54 Standard
ESD	+/-8KV Air Discharge, +/-4KV Contact Discharge

1.6. Product Label

The Handy Terminal has several labels as showed in Figure 1-1.

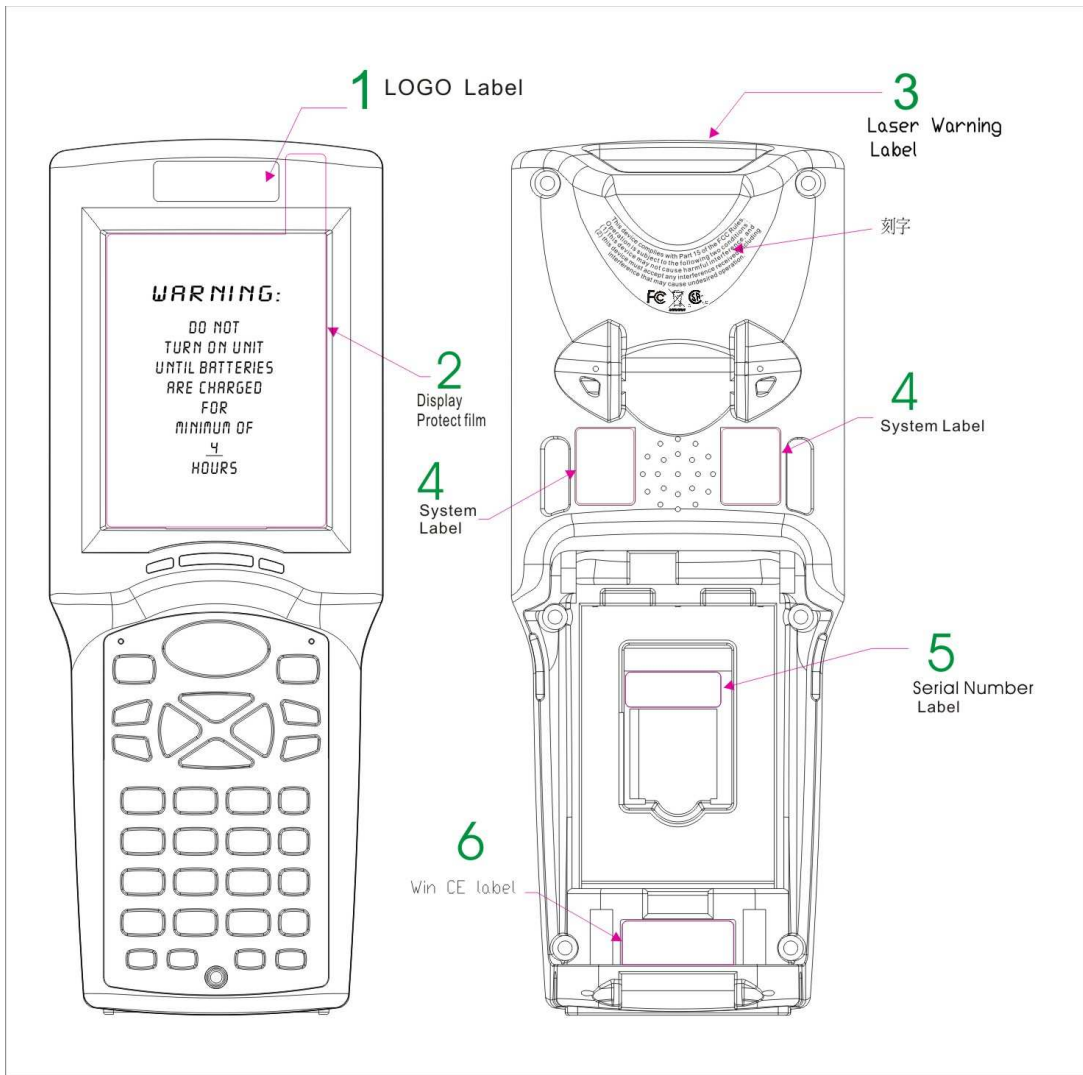


Figure 1-1

1.7. Warranty And After Service

Should this Handy Terminal be malfunctioned, please contact your original retailer providing information about the product name, the serial number, and the details about the problem.

Charpt 2. Introduction

Congratulations on purchasing the Terminal, a Microsoft Windows® CE .Net rugged Terminal. It's special combination of features make it perfect for using in a wide range of applications. These features as :

- ✧ Small rugged lightweight form factor
- ✧ Microsoft Windows® CE .Net 5.0 operating system
- ✧ Flexible module design
- ✧ Wireless mobility via Bluetooth (802.11b/g by optional)
- ✧ Robust expansion capability
- ✧ Trans-missive type color LCD display

2.1. Package Contents

Open the package and check all the parts are inside without shortage and damage :

No.	Item	Notes
1.	Handy Terminal	Standard
2.	Quick Guide	Standard
3.	Standard Battery Pack (2000mAH)	Standard
4.	Power Adapter (without power cord)	Standard
5.	USB Y Cable	Standard
6.	Hand Strap	Standard
7.	Stylus	Standard

2.2. General View

2.2.1. Handy Terminal Front Side View

Figure 2-1








2.2.2. Handy Terminal Back Side View

Figure 2-2



Table 2-1 Description of Terminal General View

1	Scanner LED Indicator	“Red” color	Scan is in progress
		“Green” color	Scan is reading successful
2	Charge LED Indicator	“Red” color	Battery Pack is still charging
		“Green” color	Battery Pack is charged full
3	LCM/ Touch Panel	Do specific action through touch panel by stylus	
4	Scan key	Start scanning the barcode by pressing the scan key	
5	Power key	Turns on the system resume or turn off the system suspend, if this power key button is pressed.	
6	Fun key()	1. This key is used to combination with other keys to type special character or perform system functions 2. The status icon of task bar will display like  when it is orange function mode.	
7	F1 key~ F4 key	The four application keys, hot keys of application program defined by end user.	
8	Navigation key	Navigation keys for left, right, up and down directions	
9	Alpha-Numeric keys	Numeric keys, Change to Alpha keys after pressing Alpha key.	
10	Alpha key	1. Toggle Alpha-mode for Alpha-Numeric keys 2. The status icon of task bar will display like  when it is Alpha mode.	

11	Fun key ()	<p>1. This key is used to combination with other keys to type special character or perform system functions.</p> <p>2. The status icon of task bar will display like  when it is blue function mode.</p>
12	Enter key	This key confirms data entry
13	Ear phone jack Connector	A connector to plug a earphone set with microphone
14	DC power /USB /Serial /Synchronization port	A connector to support DC power, USB Host/Client and serial functions
15	Barcode window	A window for scanning of barcode reader
16	Stylus	Use the stylus for selecting items and entering information.
17	Battery cover	Protect Battery pack, keep the switch of battery cover to leave system from suspend mode
18	Battery cover latch	To keep Battery Cover locked
19	Hand strap	This strap can be sealed tighter or looser

2.3. Keypad Description


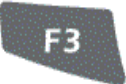
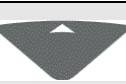
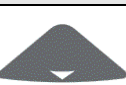




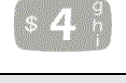



Figure 2-3



2.3.1. Key Maps and Behavior

A 32-key numeric alpha keypad contain 0-9 digits as single keystrokes will be produced. The triple click behavior to Alphabetic keys is described elsewhere.

Position	Legend	Default	Shift Function	Orange Function	Blue Function
1	ESC	Escape			
2	SCAN	Scan			
3	ENT	Enter			
4	F1	F1		F9	F5

Position	Legend	Default	Shift Function	Orange Function	Blue Function
5		F2		F10	F6
6		F3		F11	F7
7		F4		F12	F8
8		Up Arrow		[Page Up]	[Increase Volume]
9		Down Arrow		[Page Down]	[Reduce Volume]
10		Left Arrow			[Reduce Backlight]
11		Right Arrow			[Increase Backlight]
12		1	!	:	;
13		2	@		+
14		3	#	End	[
15		4	\$		€
16		5	%		-
17		6	^]
18		7	&	[Windows Icon]	`
19		8	*	[Screen Rotation]	~
20		9	([K/B Lock Icon]	"
21		0)	?	/

Position	Legend	Default	Shift Function	Orange Function	Blue Function
22		,	<	{	‘
23		.	>	}	=
24		BkSp		[Home Logo]	Space
25		Enter Shift mode	Cancel Shift mode		
26		Tab		[Back Tab]	Caps Lock
27		Delete		\	Ins
28		Enter Blue function mode		Enter Orange Function Mode Cancel Blue Function Mode	Cancel Blue Function Mode
29		Enter Alpha mode			
30		Control		_	Alt
31		Enter Orange function mode		Cancel Orange Function Mode	Enter Blue Function Mode Cancel Orange Function Mode
32		Power Suspend	Power Suspend	Power Suspend	Power Suspend

2.3.2. Numeric Keypad Alpha Mode and Triple Click

In the 32-key Numeric keypad system, an ‘Alpha’ mode allows Alphabetic characters to be entered. To enter the Alpha mode, press the ALPHA key. After that, the 0, 1, 2, ... 8, 9 keys will only represent Alphabetic characters, per the table below.

Default Alpha mode produces lower case alphabetic characters. User can use Shift or Caps Lock to get upper case alphabetic characters. No keyboard messages will be generated until the character selection is finalized.

















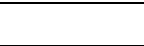
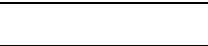
Numeric Mode	Alpha Mode							
	Key Legend	First Key-press	Second Key-press	Third Key-press	Fourth Key-press	Fifth Key-press	Sixth Key-press	Seventh Key-press
	0	0	0	0	0	0	0	0
	1	1	1	1	1	1	1	1
	a	b	c	a	b	c	a	
	d	e	f	d	e	f	d	
	g	h	i	g	h	i	g	
	j	k	l	j	k	l	j	
	m	n	o	m	n	o	m	
	p	q	r	s	p	q	r	
	t	u	v	t	u	v	t	
	w	x	y	z	w	x	y	


Table 2- 2 Alpha + Numeric keys define




To Enter	Press the Keys	To Enter	Press the Keys
a		A	
b		B	
c		C	
d		D	




To Enter	Press the Keys	To Enter	Press the Keys
e	Alpha # 3 # 3	E	Alpha Shift # 3 # 3
f	Alpha # 3 # 3 # 3	F	Alpha Shift # 3 # 3 # 3
g	Alpha \$ 4	G	Alpha Shift \$ 4
h	Alpha \$ 4 \$ 4	H	Alpha Shift \$ 4 \$ 4
i	Alpha \$ 4 \$ 4 \$ 4	I	Alpha Shift \$ 4 \$ 4 \$ 4
j	Alpha % 5	J	Alpha Shift % 5
k	Alpha % 5 % 5	K	Alpha Shift % 5 % 5
l	Alpha % 5 % 5 % 5	L	Alpha Shift % 5 % 5 % 5
m	Alpha ^ 6	M	Alpha Shift ^ 6
n	Alpha ^ 6 ^ 6	N	Alpha Shift ^ 6 ^ 6
o	Alpha ^ 6 ^ 6 ^ 6	O	Alpha Shift ^ 6 ^ 6 ^ 6
p	Alpha & 7	P	Alpha Shift & 7
q	Alpha & 7 & 7	Q	Alpha Shift & 7 & 7
r	Alpha & 7 & 7 & 7	R	Alpha Shift & 7 & 7 & 7
s	Alpha & 7 & 7 & 7 & 7	S	Alpha Shift & 7 & 7 & 7 & 7
t	Alpha * 8	T	Alpha Shift * 8
u	Alpha * 8 * 8	U	Alpha Shift * 8 * 8
v	Alpha * 8 * 8 * 8	V	Alpha Shift * 8 * 8 * 8
w	Alpha 9	W	Alpha Shift 9
x	Alpha 9 9	X	Alpha Shift 9 9
y	Alpha 9 9 9	Y	Alpha Shift 9 9 9
z	Alpha 9 9 9 9	Z	Alpha Shift 9 9 9 9

2.3.3. Function Key




The “Fun” key is used to combine with other key to type special character or perform system functions.































The status icon of task bar will display like  when it is Numerical mode.



































If press  key first, the status icon of task bar will display like  and it is Alpha mode, If repress  key again, then return to Numerical mode.






































If press  key first, the status icon of task bar will display like  and it is Blue Function mode, if repress  key again, then return to

Numerical mode.

If press  key first, the status icon of task bar will display like  and it is Orange Function mode, If repress  key again, then return to Numerical mode.

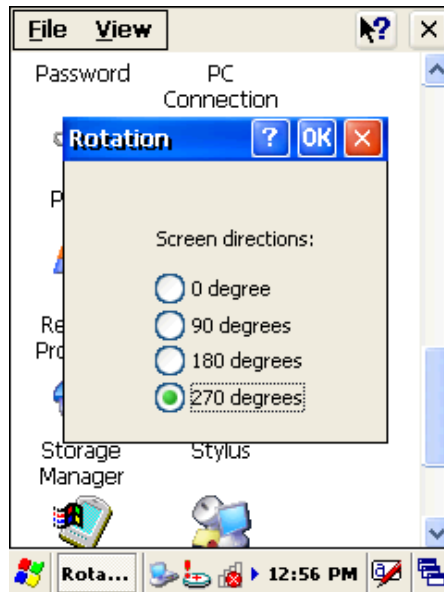
Key Sequence	Fn+ Main Function	Definition
 , 	Backlight increase	<ol style="list-style-type: none"> 1. Increase the LED backlight brightness of display screen(Lighter) 2. You must press  key to enter blue function mode first, then press  key to increase backlight brightness each time.
 , 	Backlight decrease	<ol style="list-style-type: none"> 1. Decrease the LED backlight brightness of display screen(darker) 2. You must press  key to enter blue function mode first, then press  key to decrease backlight brightness each time.
 , 	Volume increase	<ol style="list-style-type: none"> 1. Increase the Volume 2. You must press  key to enter blue function mode first, then press  key to increase volume each time.
 , 	Volume decrease	<ol style="list-style-type: none"> 1. Decrease the Volume 2. You must press  key to enter blue function mode first, then press  key to decrease volume each time.
 , 	Page up	You can page up of display that data have more then one page
 , 	Page Down	You can page down of display that data have more then one page
 , 	F5	It is same as F5 key on the standard keyboard of desktop
 , 	F6	It is same as F6 key on the standard keyboard of desktop
 , 	F7	It is same as F7 key on the standard keyboard of desktop
 , 	F8	It is same as F8 key on the standard keyboard of desktop
 , 	F9	It is same as F9 key on the standard keyboard of desktop

Key Sequence	Fn+ Main Function	Definition
 , 	F10	It is same as F10 key on the standard keyboard of desktop
 , 	F11	It is same as F11 key on the standard keyboard of desktop
 , 	F12	It is same as F12 key on the standard keyboard of desktop
 , 	Alt	It is same as Alt key on the standard keyboard of desktop
 , 	_	It will display a “_“ character on the cursor
 , 	Space	It will display a space character on the cursor
 , 	Home Logo	Move the cursor to first position of line.
 , 	Caps lock	It is same as Caps Lock key on the standard keyboard of desktop
 , 	Back Tab	Move the cursor to previous tab stop or previous control (on a form) , like “Shift & Tab” key the standard keyboard of desktop.
 , 	Ins	It will enable or disable Insert mode , like the standard keyboard of desktop.
 , 	\	It will display a “ \ “ character on cursor
 , 	/	It will display a “ / “ character on cursor
 , 	;	It will display a “ ; “ character on cursor
 , 	+	It will display a “ + “ character on cursor
 , 	【	It will display a “ 【 “ character on cursor
 , 	€	It will display a “ € “ character on cursor
 , 	-	It will display a “ - “ character on cursor

Key Sequence	Fn+ Main Function	Definition
 , 	】	It will display a “ 】 “ character on cursor
 , 	`	It will display a “ ` “ character on cursor
 , 	~	It will display a “ ~ “ character on cursor
 , 	"	It will display a “ " “ character on cursor
 , 	?	It will display a “ ? “ character on cursor
 , 	:	It will display a “ : “ character on cursor
 , 	End	Move the cursor to the end of line.
 , 		It will pop up the start menu of system.
 , 	[Screen Rotation]	If you change display from portrait type to landscape type, please press  key first, and then press  key. Otherwise, if you change display from landscape type to portrait type, you must press  key, and then press  key again.
 , 	[K/B Lock Icon]	If you want lock the Keyboard, please press  key first, and then press  key. Otherwise, if you want unlock keyboard, you must press  key, and then press  key again.
 , 	‘	It will display a “ ‘ “ character on cursor
 , 	{	It will display a “ { “ character on cursor
 , 	=	It will display a “ = “ character on cursor
 , 	}	It will display a “ } “ character on cursor

2.3.4. Rotating The Screen

If you change display from **Portrait** type to **Landscape** type, please double click the “**ROTATION**” icon from the control panel, the setting have 0 degree, 90 degrees, 180 degrees and 270 degrees four option.




You can do it by keyboard .

- Note.**
1. If you want change display from **Portrait** type to **Landscape** type, Press **FUN** key to enter the orange function mode first, and then press ***8** key.
 2. If you want change display from **Landscape** type to **Portrait** type, you must press **FUN** key to enter the orange function mode, and then press ***8** key again.

2.3.5. The Soft Keypad

In applications that accept keypad input, the soft input panel (**SIP**) can be used to enter data using the stylus. The **SIP** is digital, QWERTY-Style keyboard (See Figure 2-4).

To open the **SIP**, tap the **keyboard** icon () to open the menu and select **Hide Input Panel** to close the keyboard.

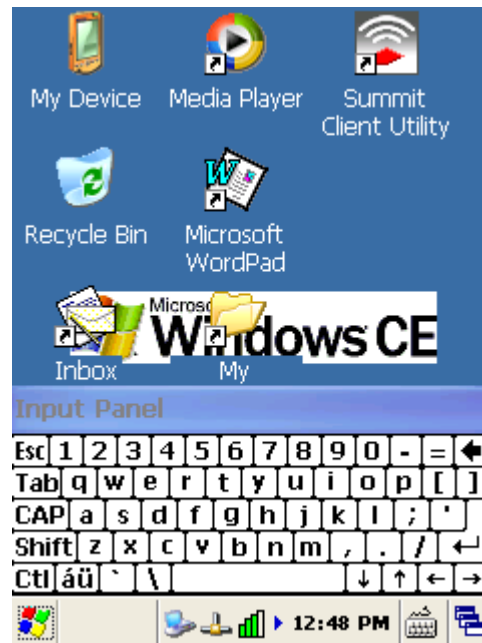
Use the stylus to select letters, numbers, or symbols from the **Soft Input Panel**

for the current application (see Figure 2-5) .

Figure 2-4



Figure 2-5



2.4. Scanning Barcode

To use the scanning function, complete the following steps :

1. Press the scan key. The scanner scans as long as you hold the key or for few seconds.
2. Upon reading a barcode, the red LED indicator comes on until the trigger is release or few seconds. The green LED and the beep tone indicate a good read.
3. Aim the scanning beam at the center of barcode.



4. Barcode Scanning Position

This device can read from 40mm to 300mm distance.

- a) Position the laser scanner close to the barcode when scanning small barcodes. And position it is a distance from the barcode when scanning large barcodes

- b) The reader can be detected by a red beam.



5. Bad Scanning Position

- a) Make sure that the bars enter the laser beam when scanning large barcodes.
- b) Scanning operations may fail if the laser beam position as below.



Note :

This product scans using laser light. Never look directly into the laser light or shine the laser light into the eyes

2.5. Resetting the Handy Terminal

2.5.1. Software (Warm) Reset

A warm reset is a transition from the on, idle, or suspend power state that close all applications, clears the working RAM, but preserves the file system.

Reason to Warm Reset : If an application “hangs”, initiate a warm reset to terminate the application only.

Procedure to Warm Reset : To initialize a warm reset, press and hold the

< ESC > & < ⏻ > key.

Note : **After Warm Reset :**

- The desktop appears with the application shortcuts on the screen.
- The custom settings in the registry are persistent.
- The wireless will reconnects to the network system.

2.5.2. Cold Reset

1. You can use Cold Reset to initiate device if WINCE.NET OS lock up or Warm Reset still can't work
2. To perform Cold Reset, please press <ESC> & <ENT> & <Power> key simultaneously until Cold reset start.
3. Device will initiate boot up after Cold Reset.

Caution :

Please press the <ESC> & <Power> key first. Try warm reset before you initiate Cold Reset. All applications will be Closed and working RAM and all files will be cleared if you initiate the Cold Reset. It's better usually to back up your files to Flash ROM, Flash Card.

2.6. Saving to Flash

The DiskOnChip folder let the application or a data file can be stored into the Flash Memory. To save an application or data to the Flash Memory, from your current application, select **File** → **Save As** → navigate to the **DiskOnChip** location and save it.

You can use backup manager form start → program to backup all system and save it to the DiskOnChip fold after you install your application program and do the all setting complete.

Note :

The DiskOnChip storage memory persists all reset (warm/cold reboot) conditions and software/firmware updates.

We strongly recommend installing all applications, applets, programs, and important data files to the DiskOnChip Flash location.

Caution : If an application or a data file is only installed or saved in RAM, a hard reset will result in the loss of that application or data file.

The size of the DiskOnChip folder will vary, depending on the size of system firmware °

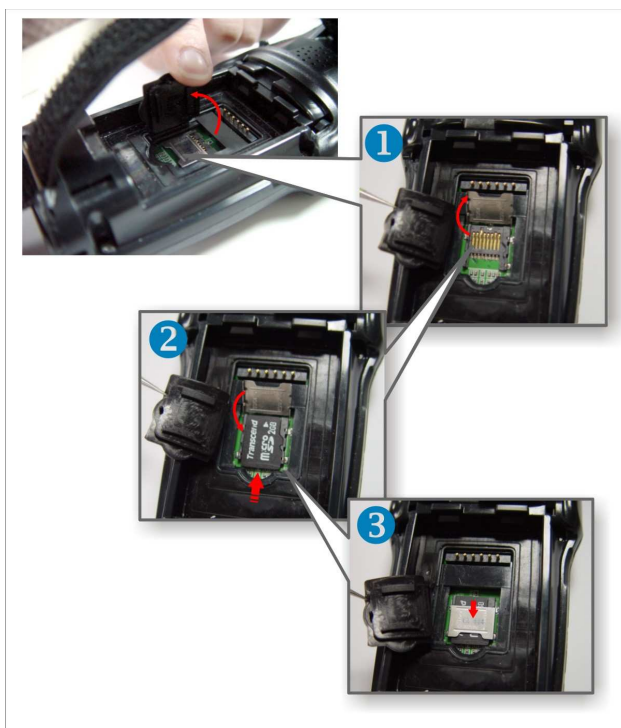
- Inside the **DiskOnChip** directory, tap **File** → **Properties** °

- The **DiskOnChip Properties** dialog will display the size of DiskOnChip folder ◦



2.7. SD Card

The Handy Terminal provide for add a Micro SD memory storage card. You can do as follow step to insert the Micro SD memory storage card.



When insert a Micro SD memory storage card to Handy Terminal Micro SD slot complete, the system will create a folder name “MultiMediaCard”. The system administrator can find this folder from “My Device”.

The Handy Terminal support a Micro SD memory storage card, the maxima size is **2Gb** °

Charpt 3. Getting Started

3.1. Charging the Battery Pack

Before using the Handy Terminal, perform the basic procedure of charging the battery pack through the following steps.

3.1.1. Installing the battery pack

1. On the Handy Terminal attached with a hand-strap, detach and loose the hand-strap.



2. Turn the switch cover latch and lift the battery cover away from the Handy Terminal.



3. Insert the battery pack into the battery compartment with the label facing out, and ensuring the battery snaps into place



4. Replace the battery cover by insert the top first, switch lock the battery cover latch to secure the cover to the Handy Terminal.
5. Charge time. For the first time to charge the battery pack needs approximately 5 hours. Subsequent charging time needs approximately 3 hours.

Caution : When charging the battery pack, the Power LED on the Handy Terminal turns on **Red**. After the battery pack is fully charged, the Power LED turns to **green**.

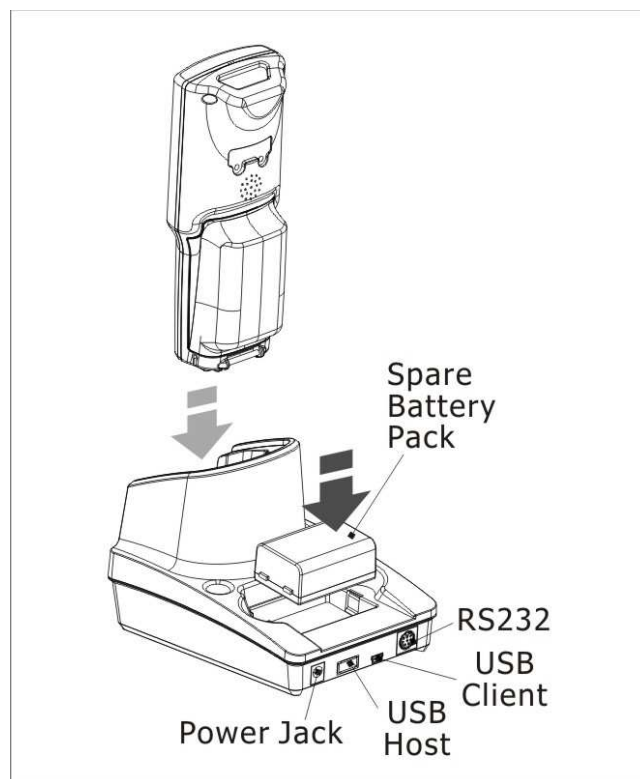
3.1.2. Charging the battery pack with Power Adapter

1. Plug in the DC-IN Converter to the Handy Terminal bottom connector
2. Connect the Power cord to the Power adapter
3. Plug in the connector of the power adapter with DC-IN Converter
4. Connect the power cord to a power source



3.1.3. Charging the battery pack with Single Dock

- a) Do not leave the battery pack inside of the Handy Terminal
 1. Connect the Power cord to the Power adapter
 2. Connect the power cord to a power source
 3. Plug in the connector of the power adapter with Single Dock
 4. Insert the Handy Terminal into the Single Dock



- b) Place the spare battery pack into the Single Cradle's spare Battery charging slot
 1. Connect the Power cord to the Power adapter
 2. Connect the power cord to a power source
 3. Plug in the connector of the power adapter with Single Cradle
 4. Insert the Battery pack into the Single Cradle's spare Battery slot

Caution : When charging the battery pack, the Power LED on the Handy Terminal turns to **Red**. After the battery pack is fully charged, the

Power LED turns to **Blue**.

Caution : Please don't remove the Battery pack too long from Handy Terminal after you have already full-charged the Battery pack and backup battery pack and start to use the Handy Terminal. Otherwise the data stored inside SDRAM memory will be lost. Please also keep in mind power the Handy Terminal off if you want to change the main Battery pack.

3.2. Starting the Handy Terminal


Press the Power key to turn on/off the Handy Terminal. If the Handy Terminal does not power on, please perform a cold boot. See *2.5 Resetting the Handy Terminal* on page 25

Caution : When a battery is fully inserted in Handy Terminal for the first time, upon the Handy Terminal's first power up, the device boots and powers on automatically.



When the Handy Terminal is powered on for the first time, it initializes its system. A splash screen appears for a short period of time followed by the Wince.NET 5.0 window.

3.3. Power (and Backlight) on / off

Press the Power/Backlight key briefly (). If the Handy Terminal does not power on, please perform the cold reset.

As the Handy Terminal initializes its File system, the Terminal splash screen

displays for about 30 seconds.

To turn off the Handy Terminal, just press the Power/Backlight key again. This action does not actually turn off the Handy Terminal, it only turn the Handy Terminal into suspend mode. All running applications remain as you left them, until you press the Power key again to resume operation of the Handy Terminal

3.4. Navigating the Display

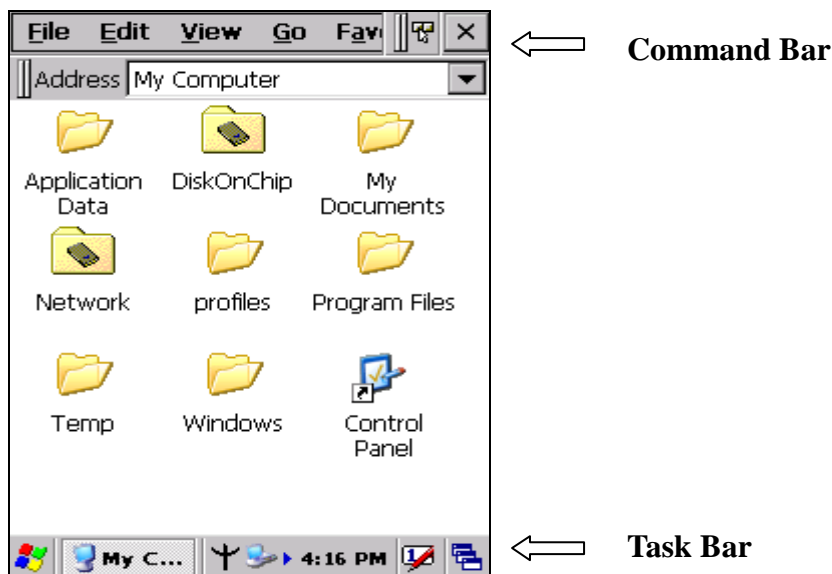
3.4.1. The Command Bar

Use the **Command** bar at top of the screen to perform tasks in programs, such a opening a file, or editing a file.

3.4.2. The Task Bar

The **Task** bar at the bottom of the screen displays the icon, an icon for the active program, the current time, and system icons for utilities loaded in memory. The **Task** bar includes menu names, buttons, and the keyboard icon, which opens and closes the soft input panel (SIP). The **Task** bar allows you to select and close programs. Refer to Figure 3-1 to view the **Task** bar.

Figure 3-1



3.4.3. Using the Stylus

The stylus function like a mouse, hold the stylus like a pen or pencil. You can do action as follow.

- ◇ Double Tap : Touch the icon twice on the screen to open or execute it.
- ◇ Tap : On the pop-up menu, tap the item that you want to perform.
- ◇ Drag : Firmly press the icon on the screen to drag across the screen.

Caution : Never use an actual pen, pencil, or sharp/ abrasive object to write on the touch screen.

Do not apply unnecessary high pressures on the screen.

3.5. Calibration of the touch Screen

On the initial boot-up of the Handy Terminal, the stylus calibration screen (Labeled Align Screen) opens. Use the stylus to press and hold briefly on the center of each target as it moves around the screen.

If necessary, adjust the backlight on the Handy Terminal to make the screen readable.

When you feel the touch screen function is poor or the operation does not match the exact location it should be, please recalibrate the screen by using the stylus to tap the Start → Settings → Control Panel → Stylus, to open the “**Calibration**” to recalibrate again

Carefully press and briefly hold stylus on the center of the target. Repeat as the target moves around the screen. Press the Esc key to cancel.

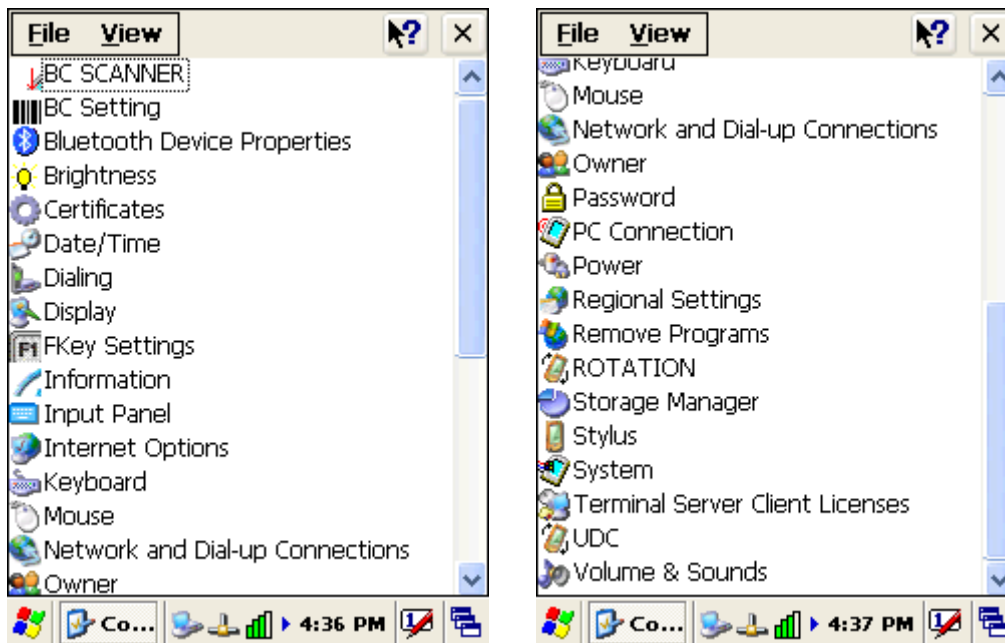


3.6. Control Panel

From the Desktop, double click the “**My Device**” icon then double click the “**Control Panel**” icon to open the Windows CE 5.0 control panel. The control panel can be launched from Start → Settings → Control panel also.

All applet programs are displayed as a icon on the screen.

Figure 3-2



3.6.1. Barcode Setting

Double click the “**BC Settings**” icon from control panel to open the barcode setting. The system administrator can enable /disable the barcode type from the “**barcode**” page that can be decoded by scanner which you enable.

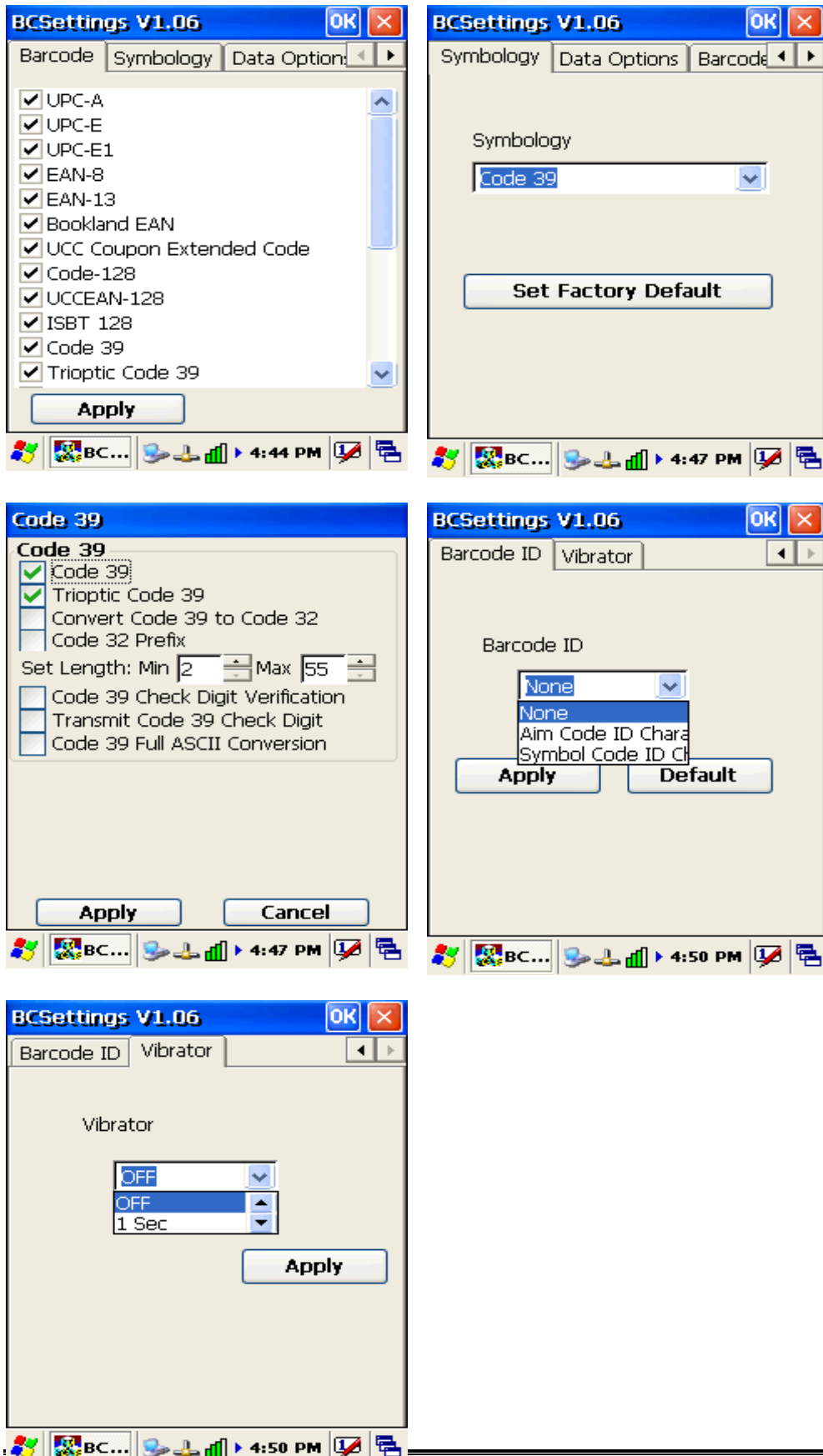
Tap the “**Symbology**” page, you can select a barcode type form “**Symbology**” item to do the advance setting which you want.

Tap the “**Data Options**” page, you can set another option for all barcode type.

Tap the “**Barcode ID**” page, you can set display barcode Id for all all barcode type.

Tap the “**Vibrator**” page, you can set vibrator after barcode scan ok.

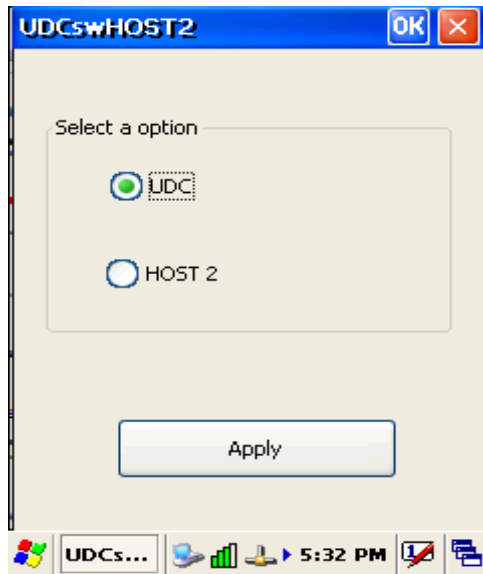
Figure 3-3



3.6.2. UDC Setting

You can switch-able USB Host or USB Client by this program. The “**UDC**” is USB client that you can connect with PC by USB Y cable or cradle. The “**Host2**” is USB Host that support **USB 1.1** device and you can connect with USB keyboard, USB mouse or USB flash disk by cradle.

Figure 3-4



3.7. Backup and Restore Function

Tap Start → Program → Backup Manager, the SunnySoft Backup Manager program be executed. The system administrator can choice Easy Mode or Advanced Mode to backup all system or backup the folders what you want.

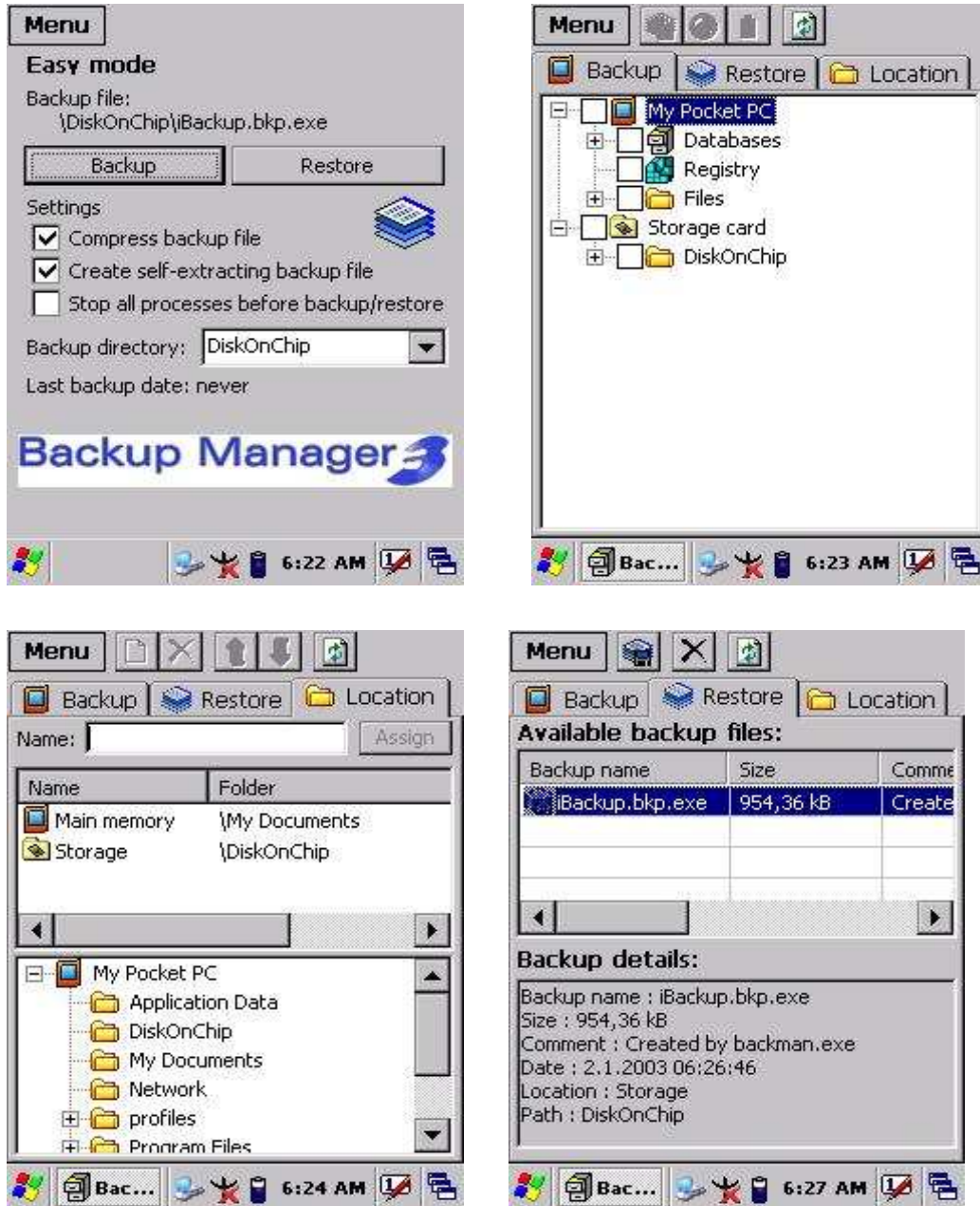
The backup directory can be choice to DiskOnChip , MultiMediaCard(if already insert the SD card)or My Documents folder.

Notes : The file on the DiskOnChip folder will permanent exist even cold reset.
If insert the Micro SD card to the terminal, the MutiMediaCard folder will be created for Micro SD card by System.

The backup file is an execution file. The system administrator can double click the backup file icon to restore the system. After restore complete please warm reset

again.

Figure 3-5



Charpt 4. Communication

4.1. Bluetooth Device

The system administrator has discovered and paired with a Bluetooth device from OBEX tools of Terminal. The system administrator can assign a friend name for Terminal that default friend name is “**WindowsCE**”.

The OBEX tools also support file transfer between two Terminals by Bluetooth connection.

Notes :

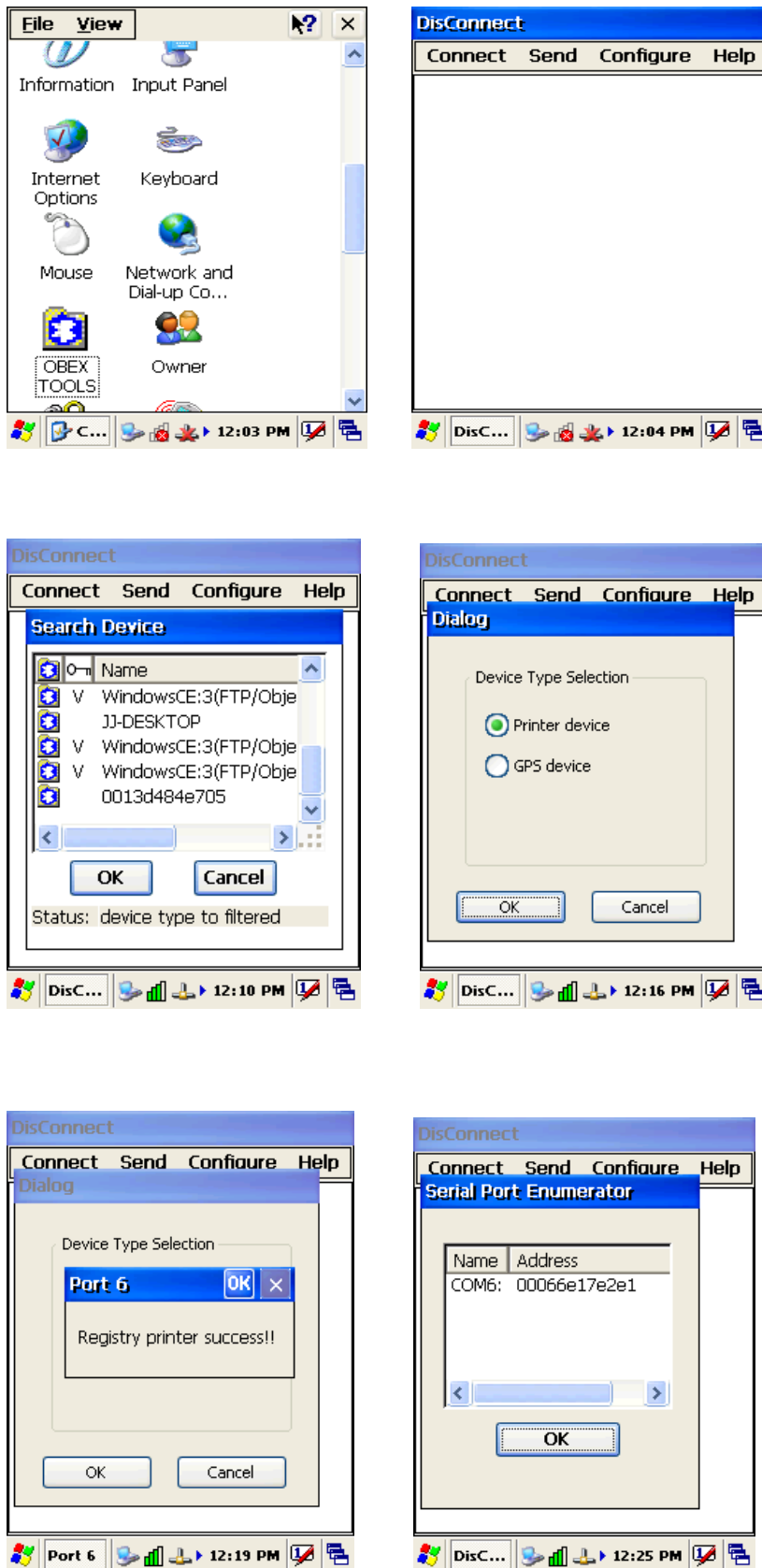
- ✧ Start → settings → control panel → double click the “system” icon.
- ✧ The system administrator can assign a device name from “Device Name” Page, default is “WindowsCE” ◦

4.1.1. Connect to a Bluetooth device

The administrator can perform procedure as follow to communication with Bluetooth device and Terminal.

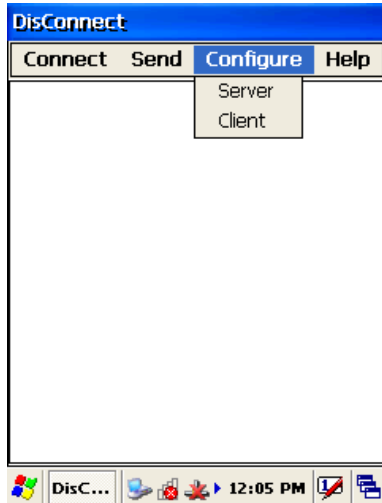
- Double click the “OBEX tools” icon from control panel.
- Tap the “Connect “ from menu
- Tap the “Search Device” to discovery the Bluetooth device nearby the Terminal.
- Select the Bluetooth device that you want pair.
- Select the “Printer Device“ or “GPS Device” depend on the device, then press “Ok” button. And pop-up a message window to display the connect port name.

Figure 4-1

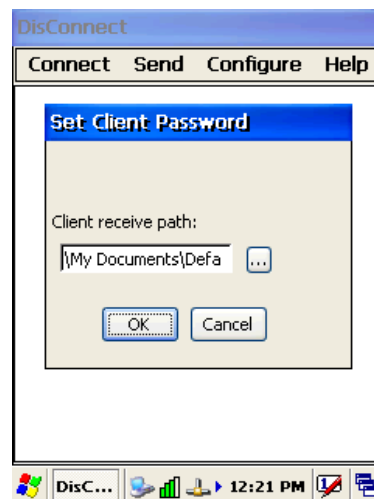
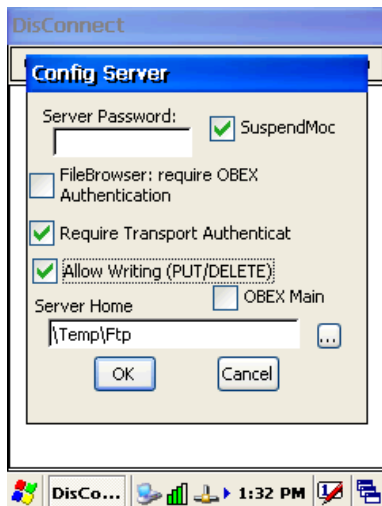


4.1.2. File transfer between two Terminals

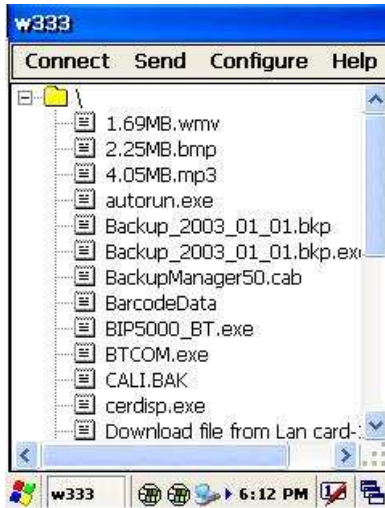
The role of one terminal must set as “server” from OBEX tools, and another must set as “client”.



The role of server can be assigned a folder (Ex “DiskOnChip” folder) to share for client. The role of client can assign a file path to link the Server folder.






If connect ok between two Terminals , the Client will display the folder of server, you can create a folder , delete a folder , sent a file from client to server

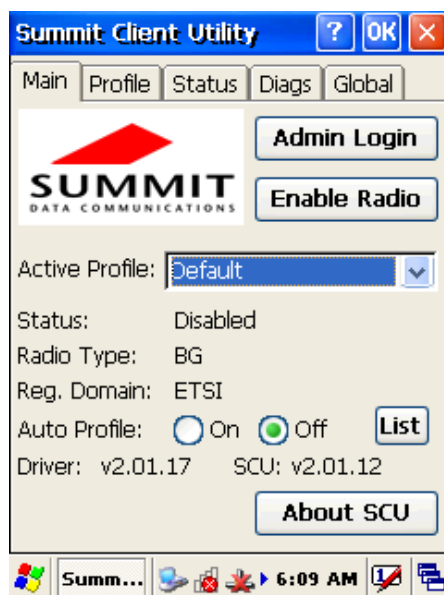


4.2. Ethernet Network

Terminal Wi-Fi 802.11 b/g model can communicate with the host computer using the on-board radio frequency component and Access point.

To tap the icon  or  at Task bar, then a Wireless LAN screen “WLAN Manager” appear, select “**Wireless information**” page. There is a list of Wireless access points, double click the access point on the list that you want connect , set up the Encryption, Authentication, Network key items according the access point setting.

To tap the icon  at the Task bar, then the “Summit client utility” appear, you can change active profile by default or ThridPartyConfig.



The default admin password is “SUMMIT”.

The on-board radio frequency component of Terminal has an utility, it is visible on the desktop, please tap the “Summit Client utility” icon. You can find more information about this applet for the radio configuration from <http://www.summitdatacom.com/SCU.htm>.

4.3. Microsoft® ActiveSync®

Microsoft ActiveSync is a file transfer tool that has possibility to connect with a host pc and an Terminal and synchronize the files on them. You can establish an ActiveSync connection between host pc and Terminal through the following electrical interfaces.

- RS232 interface : either directly or through the single cradle.
- USB interface : either directly or through the single cradle.
- Bluetooth interface.

When the Terminal connect with host PC by RS232 / USB interface, the Microsoft ActiveSync start running, you were prompted to create a partnership with your mobile device. When you set up a partnership, you can select synchronization and file conversation settings, which are contained in a file on your desktop computer. This file enables your desktop computer to recognize your device. Only devices that have a partnership with a desktop computer can synchronize information between the two computers.

For more information on partnerships, please refer to your Microsoft ActiveSync documentation or help file.